

4050.000900.ST25 SEQUENCE LISTING

SEQUENCE LIST

RECEIVED

<110> STAPLETON, DAVID IAN
CHEN, ZHIPING
MICHELL, BELINDA JOYCE
KEMP, BRUCE ERNEST
MITCHELHILL, KENNETH IAN

MAR 0 3 2004

```
<120> REGULATION OF NITRIC OXIDE SYNTHASE ACTIVITY
```

<130> 4050.000900

<140> 09/807,877

<141> 2001-04-19

<150> PCT/AU99/00968

<151> 1999-11-05

<150> PP6976

<151> 1998-11-06

<160> 24

<170> PatentIn version 3.2

<210> 1

<211> 12

<212> PRT

<213> ARTIFICIAL

<220>

<223> SYNTHETIC PEPTIDE

<400> 1

Lys Lys Thr Phe Lys Glu Val Ala Asn Ala Val Lys $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} .$

<210> 2

<211> 9

<212> PRT

<213> ARTIFICIAL

<220>

<223> SYNTHETIC PEPTIDE

<220>

<221> MISC_FEATURE

<222> (3)..(3)

<223> Xaa = any amino acid

<400> 2

Thr Gln Xaa Phe Ser Leu Gln Glu Arg

<210> 3

<211> 11

<212> PRT

<213> ARTIFICIAL

```
<220>
<223> SYNTHETIC PEPTIDE
<220>
<221>
       MISC_FEATURE
<222>
       (5)..(5)
<223> Xaa = any amino acid
<400> 3
Ile Arg Thr Gln Xaa Phe Ser Leu Gln Glu Arg 1 \hspace{1cm} 5 \hspace{1cm} 10
<210> 4
<211> 9
<212> PRT
<213> ARTIFICIAL
<220>
<223> SYNTHETIC PEPTIDE
<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa = pyridylethyl Cys
<400> 4
Xaa Leu Gly Ser Leu Val Phe Pro Arg
5
<210> 5
<211> 20
<212> PRT
<213> ARTIFICIAL
<220>
<223> SYNTHETIC PEPTIDE
<400>
Thr Arg Lys Lys Thr Phe Lys Glu Val Ala Asn Ala Val Lys Ile Ser
Ala Ser Leu Met
<210> 6
<211> 18
<212> PRT
<213> ARTIFICIAL
<220>
<223>
       SYNTHETIC PEPTIDE
<400> 6
```

4050.000900.ST25

```
Gly Thr Gly Ile Thr Arg Lys Lys Thr Phe Lys Glu Val Ala Asn Ala 1 5 10 15
Val Lys
<210> 7
<211> 16
<212> PRT
<213> ARTIFICIAL
<220>
<223> SYNTHETIC PEPTIDE
<400> 7
Arg Ile Arg Thr Gln Ser Phe Ser Leu Gln Glu Arg Gln Leu Arg Gly 1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15
<210> 8
<211> 12
<212> PRT
<213> ARTIFICIAL
<220>
<223> SYNTHETIC PEPTIDE
<400> 8
Arg Ile Arg Thr Gln Ser Phe Ser Leu Gln Glu Arg 1 	 5 	 10
<210> 9
<211> 15
<212> PRT
<213> ARTIFICIAL
<220>
<223>
        SYNTHETIC PEPTIDE
<400> 9
Gly Ile Thr Arg Lys Lys Thr Phe Lys Glu Val Ala Asn Cys Val
1 5 10 15
<210>
        10
<211> 13
<212>
        PRT
<213>
       ARTIFICIAL
<220>
<223>
        SYNTHETIC PEPTIDE
<400>
Lys Leu Gln Thr Arg Pro Ser Pro Gly Pro Pro Pro Ala 1 \hspace{1cm} 5 \hspace{1cm} 10
                                                Page 3
```

4050.000900.ST25

```
<210>
      11
<211>
      37
```

<212> PRT

Homo sapiens <213>

<400> 11

Ala Ala Lys Gly Thr Gly Ile Thr Arg Lys Lys Thr Phe Lys Glu Val
1 5 10 15

Ala Asn Ala Val Lys Ile Ser Ala Ser Leu Met Gly Thr Val Met Ala 20 25 30

Lys Arg Val Lys Ala .35

12 37

<210> <211> <212>

PRT <213> bos bovis

<400> 12

Ala Thr Lys Gly Ala Gly Ile Thr Arg Lys Lys Thr Phe Lys Glu Val 1 5 10 15

Ala Asn Ala Val Lys Ile Ser Ala Ser Leu Met Gly Thr Leu Met Ala 20 25 30

Lys Arg Val Lys Ala 35

<210> 13 <211> 38

<212> PRT

<213> homo sapiens

<400> 13

Gly Thr Asn Gly Thr Pro Thr Lys Arg Arg Ala Ile Gly Phe Lys Lys 1 5 10 15

Leu Ala Glu Ala Val Lys Phe Ser Ala Lys Leu Met Gly Gln Ala Met 20 25 30

Ala Lys Arg Val Lys Ala 35

<210>

<211> 38

<212> PRT <213> rattus norvegicus <400> 14

Gly Thr Asn Gly Thr Pro Thr Lys Arg Arg Ala Ile Gly Phe Lys Lys 1 10 15

Leu Ala Glu Ala Val Lys Phe Ser Ala Lys Leu Met Gly Gln Ala Met 20 25 30

Ala Lys Arg Val Lys Ala 35

<210> 15

<211> 37

<212> PRT

<213> rattus norvegicus

<400> 15

Asp Glu Lys Leu Arg Pro Arg Arg Glu Ile Arg Phe Thr Val Leu 1 5 10 15

Val Lys Ala Val Phe Phe Ala Ser Val Leu Met Arg Lys Val Met Ala 20 25 30

Ser Arg Val Arg Ala 35

<210> 16

<211> 37

<212> PRT

<213> mus musculus

<400> 16

Asn Glu Lys Leu Arg Pro Arg Arg Glu Ile Arg Phe Arg Val Leu $1 \hspace{1cm} 10 \hspace{1cm} 15$

Val Lys Val Val Phe Phe Ala Ser Met Leu Met Arg Lys Val Met Ala 20 25 30

Ser Arg Val Arg Ala 35

<210> 17

<211> 37

<212> PRT

<213> homo sapiens

<400> 17

Asp Glu Lys Arg Arg Pro Lys Arg Arg Glu Ile Pro Leu Lys Val Leu 1 10 15

4050.000900.ST25

Val Lys Ala Val Leu Phe Ala Cys Met Leu Met Arg Lys Thr Met Ala

Ser Arg Val Arg Val 35

<210> 18

<211> 40

<212> PRT

<213> homo sapiens

<400> 18

Leu Arg Thr Gln Glu Val Thr Ser Arg Ile Arg Thr Gln Ser Phe Ser 10 15

Leu Gln Glu Arg Gln Leu Arg Gly Ala Val Pro Trp Ala Phe Asp Pro 20 25 30

Pro Gly Ser Asp Thr Asn Ser Pro 35 40

<210> 19

<211> 40

<212> PRT

bos bovis <213>

<400> 19

Leu Arg Thr Gln Glu Val Thr Ser Arg Ile Arg Thr Gln Ser Phe Ser 10 15

Leu Gln Glu Arg His Leu Arg Gly Ala Val Pro Trp Ala Phe Asp Pro 20 25 30

Pro Gly Pro Asp Thr Pro Gly Pro 35 40

<210> 20

<211> <212> 31

PRT

<213> homo sapiens

<400> 20

Leu Arg Thr Tyr Glu Val Thr Asn Arg Leu Arg Ser Glu Ser Ile Ala 1 5 10 15

Phe Ile Glu Glu Ser Lys Lys Asp Thr Asp Glu Val Phe Ser Ser 20 25 30

<210> 21

```
<211>
     31
```

<212> PRT

rattus norvegicus

Leu Arg Thr Tyr Glu Val Thr Asn Arg Leu Arg Ser Glu Ser Ile Ala 1 5 10 15

Phe Ile Glu Glu Ser Lys Lys Asp Ala Asp Glu Val Phe Ser Ser 20 25 30

22

<210> <211> 19

<212> PRT

<213> rattus norvegicus

<400> 22

Phe Ser Tyr Gly Val Lys Lys Gly Asn Ala Leu Glu Glu Pro Lys Gly 10 15

Thr Arg Leu

<210> 23

19 <211>

<212> PRT

<213> mus musculus

<400> 23

Phe Ser Tyr Gly Ala Lys Lys Gly Ser Ala Leu Glu Glu Pro Lys Ala 1 10 15

Thr Arg Leu

<210> 24 <211> 22 <212> PRT

<213> homo sapiens

<400> 24

Phe Pro Tyr Glu Ala Lys Lys Asp Arg Val Ala Val Gln Pro Ser Ser 1 5 10 15

Leu Glu Met Ser Ala Leu 20

SEQUENCE LISTING

```
<110> STAPLETON, DAVID IAN
        CHEN, ZHIPING
        MICHELL, BELINDA JOYCE
        KEMP, BRUCE ERNEST
        MITCHELHILL, KENNETH IAN
<120> REGULATION OF NITRIC OXIDE SYNTHASE ACTIVITY
<130> 4050.000900
<140> 09/807,877
<141> 2001-04-19
<150> PCT/AU99/00968
<151> 1999-11-05
<150> PP6976
<151> 1998-11-06
<160> 24
<170> PatentIn version 3.2
<210> 1
<211> 12
<212> PRT
<213> ARTIFICIAL
<220>
<223> SYNTHETIC PEPTIDE
<400> 1
Lys Lys Thr Phe Lys Glu Val Ala Asn Ala Val Lys
<210> 2
<211> 9
<212> PRT
<213> ARTIFICIAL
<220>
<223> SYNTHETIC PEPTIDE
<220>
<221> MISC FEATURE
<222> (3)..(3)
<223> Xaa = any amino acid
<400> 2
Thr Gln Xaa Phe Ser Leu Gln Glu Arg
```

```
<210> 3
 <211> 11
 <212> PRT
 <213> ARTIFICIAL
 <220>
 <223> SYNTHETIC PEPTIDE
 <220>
 <221> MISC_FEATURE
 <222> (5)..(5)
 <223> Xaa = any amino acid
 <400> 3
 Ile Arg Thr Gln Xaa Phe Ser Leu Gln Glu Arg
 <210> 4
 <211> 9
 <212> PRT
 <213> ARTIFICIAL
<220>
 <223> SYNTHETIC PEPTIDE
<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa = pyridylethyl Cys
<400> 4
Xaa Leu Gly Ser Leu Val Phe Pro Arg
<210> 5
<211> 20
<212> PRT
<213> ARTIFICIAL
<220>
<223> SYNTHETIC PEPTIDE
<400> 5
Thr Arg Lys Lys Thr Phe Lys Glu Val Ala Asn Ala Val Lys Ile Ser
                5
```

Ala Ser Leu Met

<223> SYNTHETIC PEPTIDE

```
<210> 6
<211> 18
<212> PRT
<213> ARTIFICIAL
<220>
<223> SYNTHETIC PEPTIDE
<400> 6
Gly Thr Gly Ile Thr Arg Lys Lys Thr Phe Lys Glu Val Ala Asn Ala
                                   10
Val Lys
<210> 7
<211> 16
<212> PRT
<213> ARTIFICIAL
<220>
<223> SYNTHETIC PEPTIDE
<400> 7
Arg Ile Arg Thr Gln Ser Phe Ser Leu Gln Glu Arg Gln Leu Arg Gly
                                   10
<210> 8
<211> 12
<212> PRT
<213> ARTIFICIAL
<220>
<223> SYNTHETIC PEPTIDE
<400> 8
Arg Ile Arg Thr Gln Ser Phe Ser Leu Gln Glu Arg
               5
<210> 9
<211> 15
<212> PRT
<213> ARTIFICIAL
<220>
```

```
<400> 9
```

Gly Ile Thr Arg Lys Lys Thr Phe Lys Glu Val Ala Asn Cys Val 1 5 10 15

<210> 10

<211> 13

<212> PRT

<213> ARTIFICIAL

<220>

<223> SYNTHETIC PEPTIDE

<400> 10

Lys Leu Gln Thr Arg Pro Ser Pro Gly Pro Pro Pro Ala 1 5 10

<210> 11

<211> 37

<212> PRT

<213> Homo sapiens

<400> 11

Ala Ala Lys Gly Thr Gly Ile Thr Arg Lys Lys Thr Phe Lys Glu Val 1 5 10 15

Ala Asn Ala Val Lys Ile Ser Ala Ser Leu Met Gly Thr Val Met Ala 20 25 30

Lys Arg Val Lys Ala 35

<210> 12

<211> 37

<212> PRT

<213> bos bovis

<400> 12

Ala Thr Lys Gly Ala Gly Ile Thr Arg Lys Lys Thr Phe Lys Glu Val $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Ala Asn Ala Val Lys Ile Ser Ala Ser Leu Met Gly Thr Leu Met Ala 20 25 30

Lys Arg Val Lys Ala 35

<210> 13

<211> 38

<212> PRT

<213> homo sapiens

<400> 13

Gly Thr Asn Gly Thr Pro Thr Lys Arg Arg Ala Ile Gly Phe Lys Lys 5 15

Leu Ala Glu Ala Val Lys Phe Ser Ala Lys Leu Met Gly Gln Ala Met

Ala Lys Arg Val Lys Ala 35

<210> 14

<211> 38

<212> PRT

<213> rattus norvegicus

<400> 14

Gly Thr Asn Gly Thr Pro Thr Lys Arg Arg Ala Ile Gly Phe Lys Lys

Leu Ala Glu Ala Val Lys Phe Ser Ala Lys Leu Met Gly Gln Ala Met . 25

Ala Lys Arg Val Lys Ala 35

<210> 15

<211> 37

<212> PRT

<213> rattus norvegicus

<400> 15

Asp Glu Lys Leu Arg Pro Arg Arg Glu Ile Arg Phe Thr Val Leu

Val Lys Ala Val Phe Phe Ala Ser Val Leu Met Arg Lys Val Met Ala 25

Ser Arg Val Arg Ala 35

<210> 16 <211> 37 <212> PRT <213> mus musculus <400> 16 Asn Glu Lys Leu Arg Pro Arg Arg Glu Ile Arg Phe Arg Val Leu Val Lys Val Val Phe Phe Ala Ser Met Leu Met Arg Lys Val Met Ala Ser Arg Val Arg Ala 35 <210> 17 <211> 37 <212> PRT <213> homo sapiens <400> 17 Asp Glu Lys Arg Arg Pro Lys Arg Arg Glu Ile Pro Leu Lys Val Leu Val Lys Ala Val Leu Phe Ala Cys Met Leu Met Arg Lys Thr Met Ala 20 25 Ser Arg Val Arg Val 35 <210> 18 <211> 40 <212> PRT <213> homo sapiens <400> 18 Leu Arg Thr Gln Glu Val Thr Ser Arg Ile Arg Thr Gln Ser Phe Ser

Leu Gln Glu Arg Gln Leu Arg Gly Ala Val Pro Trp Ala Phe Asp Pro 20 25

Pro Gly Ser Asp Thr Asn Ser Pro 35 40

```
<210> 19
<211> 40
<212> PRT
<213> bos bovis
<400> 19
Leu Arg Thr Gln Glu Val Thr Ser Arg Ile Arg Thr Gln Ser Phe Ser
                5
Leu Gln Glu Arg His Leu Arg Gly Ala Val Pro Trp Ala Phe Asp Pro
Pro Gly Pro Asp Thr Pro Gly Pro
        35
<210> 20
<211> 31
<212> PRT
<213> homo sapiens
<400> 20
Leu Arg Thr Tyr Glu Val Thr Asn Arg Leu Arg Ser Glu Ser Ile Ala
Phe Ile Glu Glu Ser Lys Lys Asp Thr Asp Glu Val Phe Ser Ser
                                25
<210> 21
<211> 31
<212> PRT
<213> rattus norvegicus
<400> 21
Leu Arg Thr Tyr Glu Val Thr Asn Arg Leu Arg Ser Glu Ser Ile Ala
Phe Ile Glu Glu Ser Lys Lys Asp Ala Asp Glu Val Phe Ser Ser
                                25
<210> 22
<211> 19
<212> PRT
```

<213> rattus norvegicus

<400> 22

Phe Ser Tyr Gly Val Lys Lys Gly Asn Ala Leu Glu Glu Pro Lys Gly 1 5 10 15

Thr Arg Leu

<210> 23

<211> 19

<212> PRT

<213> mus musculus

<400> 23

Phe Ser Tyr Gly Ala Lys Lys Gly Ser Ala Leu Glu Glu Pro Lys Ala 1 5 10 15

Thr Arg Leu

<210> 24

<211> 22

<212> PRT

<213> homo sapiens

<400> 24

Phe Pro Tyr Glu Ala Lys Lys Asp Arg Val Ala Val Gln Pro Ser Ser 1 $$ 5 $$ 10 $$ 15

Leu Glu Met Ser Ala Leu 20